The Monitor

The Newsletter of the ETV Advanced Monitoring Systems (AMS) Pilot

Volume 2, Number 7 July 1999

Attention Vendors: Next Verification Tests Could Include You

A fifth category – small analyzers or test kits that monitor contaminants in water – has been added to the technologies scheduled for testing by the Advanced Monitoring Systems (AMS) pilot of the U.S. Environmental Protection Agency's Environmental Technology Verification (ETV) program. The information at right and the accompanying graphic describe the technology categories in the AMS pilot's verification test queue for air and water monitoring instruments.

Portable NO/NO_2 Emission Analyzers. Verification test reports and verification statements are in the final sign-off stage at EPA for the five vendors participating in the test in January. The companies are ECOM America, Ltd., Duluth, GA; Enerac Division of Energy Efficiency Systems, Westbury, NY; Horiba Instruments, Irvine, CA; Testo, Inc., Flanders, NJ; and TSI, Inc., Shoreview, MN. The final test reports are expected to be available in August on the ETV web site at http://www.epa.gov/etv/library.htm.

On-line Turbidimeters. Next on the schedule is the verification test for on-line turbidimeters, which is to be conducted over approximately six weeks in August and September at an operating municipal water plant in Columbus, Ohio. These turbidimeters are devices that provide continuous, real-time monitoring of low-level cloudiness, or turbidity, of water to assess whether drinking water meets current regulations. Four vendors are expected to submit their instruments for testing. See the June 1999 issue of *The Monitor* newsletter for additional information about this test.

Fine Particulate Monitors. These monitors are of two types: those that continuously measure the chemical components of fine particulate matter in ambient air, and those that continuously monitor some particle characteristic (such as light scattering) that correlates with the mass or number of particles in air. The verification test will be conducted at two existing monitoring sites in different geographic regions. The test is expected to begin in September in Pittsburgh, PA, and continue in December in Fresno, CA. Six to 10 vendors are expected to participate.

Optical Open-path Monitors. The optical open-path monitors to be verified rely on a source of radiation (ultraviolet, visible, or infrared) and a detector used together to identify and quantify levels of certain chemicals in the atmosphere. These monitors are typically used in a continuous monitoring mode and can provide simultaneous monitoring of several compounds. The verification test/quality assurance (QA) plan for this technology category is being finalized, following review by interested vendors and EPA staff. The test will be conducted during September at Battelle's laboratory facilities in Columbus or at the vendors' sites. Four to eight vendors are expected to participate.

Hand-held Water Analyzers. These mini-instruments are portable, electronic devices that analyze contaminants in water. Home test kits are also included in this technology category. Battelle is currently contacting vendors who may be interested in participating in the verification test.

Additional Technology Categories. The AMS pilot is considering verification tests for four additional technology categories: **air** - continuous emissions monitors (CEM) for mercury and in-stack fine particulate monitors; **water** - bacterial monitors and pathogen detectors.

Note to Vendors

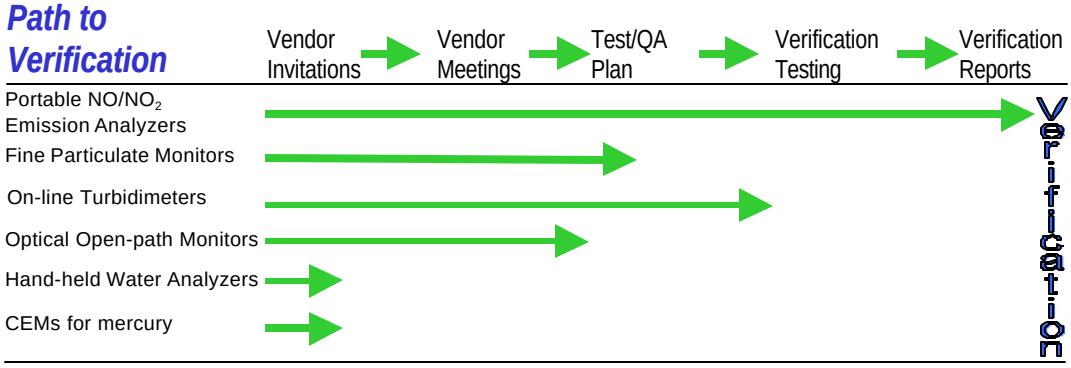
For additional information about upcoming verification tests, please contact the following Battelle engineers:

General information about all AMS verification tests–Tom Kelly, 614-424-3495 or kellyt@battelle.org.

Turbidimeters, fine particulate monitors, hand-held water analyzers–Ken Cowen, 614-424-5547 or cowenk@battelle.org.

Optical open-path monitors–Jeff Myers, 614-424-7705 or myersjd@battelle.org.

Path to Verification



The AMS pilot is one of 12 pilots in the U.S. Environmental Protection Agency's Environmental Technology Verification Program. ETV was established to accelerate the development and commercialization of improved environmental technologies through third-party verification testing and reporting of the technologies' performance. The ETV process provides purchasers and permitters with an independent assessment of the technology they are buying or permitting and facilitates multi-state acceptance. For further information, contact Helen Latham at Battelle, 505 King Ave., Columbus, Ohio 43201-2693; Phone 614-424-4062; Fax 614-424-5601; E-mail lathamh@battelle.org.

Meet the Stakeholder Committees

Two members of the AMS pilot's stakeholder committees are spotlighted in each issue of *The Monitor* – one each from the air and water committees.

Patricia L. McGlothlin
Water Stakeholder Committee

Ms. McGlothlin has been director of the Drinking Water Regulatory and Quality Services section of the Colorado Springs Utilities' Water Resources Department since January 1984. That section assures that the quality of water supplied to customers meets all applicable regulatory standards as well as internal quality standards and objectives. Prior to her current position, she was a senior chemist with the Colorado Springs Utilities where she supervised staff in chemical analyses and field assignments related to water quality.

Ms. McGlothlin is an active member of the American Water Works Association (AWWA). She currently chairs the association's water quality laboratory committee where she coordinated the revision and rewrite of the AWWA manual, "Simplified Procedures for Water Quality Examination." She also serves on the AWWA conference planning committee and two research planning advisory committees. From 1991 to 1998, she was a member of the AWWA's water quality division. She is also a member of the board for the AWWA's Rocky Mountain Section and its education committee. In 1998, Ms. McGlothlin received the AWWA's Golden Spigot Award and Fuller Award.

She received her B.S. in biological sciences from Colorado State University, where she graduated summa cum laude, and an M.B.A. from the University of Colorado at Colorado Springs.

Will M. Ollison
Air Stakeholder Committee

Dr. Ollison is a senior scientist at the American Petroleum Institute in Washington, D.C., where he works in the exposure monitoring and modeling area. He collaborates with others in academia and the private sector to develop and evaluate monitors used in risk assessments. He received his Ph.D. in physical chemistry from the Massachusetts Institute of Technology and his B.S. in chemistry from the University of Texas at Austin. From 1969 to 1976, he was a post-doctoral research fellow at Yale University's Department of Chemistry.

Dr. Ollison has authored and co-authored many papers and journal articles on ozone monitoring exposure and other air quality issues. Some recent publications include: "Variation of Residential Air Exchange Rates Under Scripted Ventilation Conditions," in the proceedings of the 1998 Air & Waste Management Association (A&WMA) Symposium; and "Effects of Prolonged Simulated Ambient Ozone Dosing Patterns on Human Pulmonary Function and Symptomatology" in the proceedings of the 90th Annual Meeting of A&WMA.

He is a member of the A&WMA, the American Association for the Advancement of Science, the American Chemical Society, the American Geophysical Union, the American Institute of Physics, the American Society for Testing and Materials, and the International Society of Exposure Analysis.

EPA, DoD Will Collaborate on Tests

EPA and the U.S. Department of Defense (DoD) signed a memorandum of agreement (MOA) on July 21 to collaborate on joint technology verification efforts. The agreement between EPA's ETV program and DoD's Environmental Security Technology Certification Program (ESTCP) will expedite the verification of environmental technologies used to clean up and protect both DoD and non-DoD sites.

The agreement will provide benefits to the two agencies, technology developers, vendors, and users, including: improved effectiveness and efficiency in conducting technology demonstration, validation, and verification projects; better use of each agency's capabilities for testing and verification; joint reporting on technology performance; and better communication and acceptance of joint and separate environmental verification efforts.

The first joint project under the MOA will be a collaborative demonstration at the U.S. Department of Energy's (DOE) Oak Ridge National Laboratory to test and verify the performance of explosives detection technologies under field conditions. The devices will analyze samples that may influence site characterization, monitoring, or cleanup decisions.

The joint verification process is also expected to provide one-stop-testing for participating technology vendors. Further information is available on the ETV website (http://www.epa.gov/etv).

Upcoming Events

September 23-24, 1999
AMS pilot's Air Stakeholder Committee meeting, Cape Cod, MA

October 4-7
Association of State Drinking Water Administrators, 14th Annual Conference, Hotel Royal Plaza, Lake Buena Vista, FL

October 20-21
AMS pilot's Water Stakeholder Committee meeting, San Diego, CA

October 31 - November 3
AWWA Water Quality Technology Conference, Tampa, FL

Visit the AMS pilot on the Web at http://www.epa.gov/etv/07/07_main.htm.